



Rocky Mountain
Remediation Services, L. L. C.
... protecting the environment

INSTRUCTION

COPY # 35

WASTE WATER TREATMENT PLANT
EFFLUENT TANK OPERATION

OPS-INSTR.005

Revision 0

September 16, 1997

APPROVED BY

[Signature] 9/16/97 WWO Team Lead

Page 1 of 7

1. PURPOSE

This work instruction (WI) provides instructions for operating the effluent Waste Water Treatment Plant (WWTP) system.

2. SCOPE

This WI applies to all WWTP operators that are required to operate the WWTP system.

This WI addresses operations of the WWTP effluent tanks and associated auxiliary equipment.

3. INSTRUCTIONS—EFFLUENT TANK OPERATIONS

3.1 Effluent Tank Filling Operation

WWTP Supervision

- [1] Determine the operations of the effluent tanks.

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

ADMIN RECORD
A SW-A-C02486

WWTO

- [2] Perform a lineup in accordance with Table 3.1, Effluent Filling Tank Lineup.

Table 3.1, Effluent Filling Tank Lineup

CELL 1		CELL 2		CELL 3	
OPEN	CLOSED	OPEN	CLOSED	OPEN	CLOSED
HV-18	HV-19	HV-19	HV-18	HV-20	HV-18
HV-21	HV-20	HV-22	HV-20	HV-23	HV-19
HV-35	HV-22	HV-35	HV-21	HV-35	HV-21
HV-50	HV-23	HV-50	HV-23	HV-50	HV-22
	HV-24		HV-24		HV-24
	HV-25		HV-25		HV-25
	HV-26		HV-26		HV-26
	HV-32		HV-32		HV-32
	HV-33		HV-33		HV-33
	HV-34		HV-34		HV-34

- [3] Place LV-50, Level Control Valve Sand Filters, to the AUTO position.
- [4] Ensure that the backwash pump is in operation.
- [5] Set HV-35 (flowrate to ultra-violet (UV) from the effluent tanks) to the desired flowrate, using FIC-75 controller.
- [6] **IF** another tank is to be place into service,
THEN perform step 3.1 [2] to change to another effluent tank.
- [7] **WHEN** filling of the effluent tanks is complete as determined by supervision,
THEN:
- [A] Close LV-50.

NOTE *The following step places sends the plant effluent directly to the UV system.*

- [B] Close the appropriate valves in accordance with Table 3.3, Effluent Tank Cell to Cell Shutdown.

Table 3.3, Effluent Tank Cell to Cell Shutdown.

CELL 1	CELL 2	CELL 3
HV-18	HV-19	HV-20
HV-21	HV-22	HV-23
HV-35	HV-35	HV-35
HV-50	HV-50	HV-50

3.2 Transferring from One Effluent Tank to Another Effluent Tank

WWTP Supervision

- [1] Determine which effluent tank is being transferred from and which effluent tank is the receiving tank..

WWTO

- [2] **IF** transferring from Effluent Tank Cell 1 to another Effluent Tank,
THEN perform a lineup in accordance with Table 3.3, Cell 1 to Another Effluent Tank.

Table 3.3, Cell 1 to Another Effluent Tank

CELL 1 to CELL 2		CELL 1 to CELL 3	
OPEN	CLOSED	OPEN	CLOSED
HV-24	HV-21	HV-24	HV-21
HV-31	HV-25	HV-31	HV-25
HV-33	HV-26	HV-34	HV-26
	HV-27		HV-27
	HV-28		HV-28
	HV-32		HV-32
	HV-34		HV-33

- [2] **IF** transferring from Effluent Tank Cell 1 to another Effluent Tank,
THEN perform a lineup in accordance with Table 3.4, Cell 2 to Another Effluent Tank.

Table 3.4, Cell 2 to Another Effluent Tank

CELL 2 to CELL 1		CELL 2 to CELL 3	
OPEN	CLOSED	OPEN	CLOSED
HV-25	HV-21	HV-25	HV-21
HV-31	HV-24	HV-31	HV-24
HV-32	HV-26	HV-34	HV-26
	HV-27		HV-27
	HV-28		HV-28
	HV-33		HV-32
	HV-34		HV-33

- [4] **IF** transferring from Effluent Tank Cell 3 to another Effluent Tank,
THEN perform a lineup in accordance with Table 3.5, Cell 3 to Another Effluent Tank.

Table 3.5, Cell 3 to Another Effluent Tank

CELL 3 to CELL 1		CELL 3 to CELL 2			
OPEN	CLOSED	OPEN	CLOSED		
HV-26	HV-21	HV-26	HV-21		
HV-31	HV-24	HV-31	HV-24		
HV-32	HV-25	HV-33	HV-25		
	HV-27		HV-27		
	HV-28		HV-28		
	HV-33		HV-32		
	HV-34		HV-34		

- [5] Place P-66, Effluent Recirculation Pump, handswitch to the HAND position.

- [6] **WHEN** the transfer from one cell to the another cell is complete,
THEN:

[A] Place P-66 handswitch to the OFF position.

[B] Close the appropriate valves in accordance with Table 3.6, Effluent Tank Cell to Cell Shutdown.

Table 3.6, Effluent Tank Cell to Cell Shutdown

CELL 1	CELL 2	CELL 3
HV-24	HV-25	HV-26
HV-31	HV-31	HV-31
HV-33	HV-32	HV-32
HV-34	HV-34	HV-33

3.3 Effluent Tanks to the Headworks

NOTE 7.6 feet or 100,000 gallons are required to be in storage in the effluent tanks to be used for fire fighting.

WWTP Supervision

- [1] Determine the transfer from the effluent tanks to the headworks.

WWTO

- [2] Perform a lineup in accordance with Table 3.7, Effluent Tanks to the Headworks.

Table 3.7, Effluent Tanks to the Headworks

CELL 1		CELL 2		CELL 3	
OPEN	CLOSED	OPEN	CLOSED	OPEN	CLOSED
HV-24	HV-21	HV-25	HV-22	HV-26	HV-23
HV-28	HV-27	HV-28	HV-27	HV-28	HV-27
HV-31	HV-32	HV-31	HV-32	HV-31	HV-32
	HV-33		HV-33		HV-33
	HV-34		HV-34		HV-34

[3] Place P-66, Effluent Recirculation Pump, handswitch to the HAND position.

[4] **WHEN** the transfer from the effluent tanks to the headworks is complete,
THEN:

[A] Place P-66 handswitch to the OFF position.

[B] Close the appropriate valves in accordance with Table 3.8, Effluent Tank to Headworks Shutdown.

Table 3.8, Effluent Tank to Headworks Shutdown

CELL 1	CELL 2	CELL 3
HV-24	HV-25	HV-26
HV-28	HV-28	HV-28
HV-31	HV-31	HV-31

4. RECORDS

The following documents generated during the performance of the tasks defined in this document must be copied and distributed as follows: (Note: QA records are to be specifically designated as such)

Document

Record Type

Disposition

None

APPENDIX 2

Page 1 of 1

EFFLUENT SYSTEM ELECTRICAL LINEUP

EQUIPMENT	POSITION
MCC-1-1988 2A	Closed
LPE	Closed
Plant Water Pump	Closed
Tank Mixer A-61	Closed
Tank Mixer A-62	Closed
Tank Mixer A-63	Closed
Transfer Recirc Pump Control Panel	Closed